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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,527	09/05/2003	Mark W. Waldrop	937-1499	8768
23117	7590	05/04/2005	EXAMINER	
NIXON & VANDERHYE, PC 1100 N GLEBE ROAD 8TH FLOOR ARLINGTON, VA 22201-4714			CARRILLO, BIBI SHARIDAN	
			ART UNIT	PAPER NUMBER
			1746	

DATE MAILED: 05/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/656,527

Applicant(s)

WALDROP ET AL.

Examiner

Sharidan Carrillo

Art Unit

1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) 3,6,7,25-35,38 and 39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,8-24,36 and 37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-39 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-24, 36-37 drawn to method for removing paint from plastic parts, classified in class 134, subclass 1.
  - II. Claims 25-35, drawn to a solvent mixture for removing paint from plastic, classified in class 510, subclass 201.
  - III. Claims 38-39, drawn to plastic parts that have been readied for paint application, classified in class 428, subclass 543.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions II and I are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the process for using the product as claimed can be practiced with another materially different product such as halogenated hydrocarbon component.
3. Inventions II and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different functions and effects.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

5. This application contains claims directed to the following patentably distinct species of the claimed invention:

(a) Species I: pH adjuster is an aqueous mineral acid - claims 2, 4, 5

(b) Species II: pH adjuster is a tetraalkyl ammonium hydroxide - claims 3, 6, 7

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claim 1 is generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the

examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

6. During a telephone conversation with Bryan H. Davidson and Examiner Lorna Douyon on April 18, 2005 a provisional election was made **with** traverse to prosecute the invention of **Group I, Species I, claims 1-2, 4-5, 8-24, 36-37**. Affirmation of this election must be made by applicant in replying to this Office action. Claims 3, 6, 7, 25-35, 38-39 have been withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-2, 4-5, 8-24, and 36-37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite because it is unclear what is meant by high-boiling aprotic polar organic solvent. Claims 1, 24, and 36 are indefinite because there is no positive step of removing paint. Claims 4 and 36 indefinite for similar reasons. Claim 11 is indefinite because it is dependent on claim 7, which is a non-elected species. Additionally, it is believed that claim 11 should be dependent on claim 9, instead of claim 7, since "the comminuted part", as recited in claim 11 lacks antecedent basis. Claim 16 is indefinite because it is unclear whether the percentage should be expressed as weight or volume percent. Claim 19 is indefinite because it is

Art Unit: 1746

dependent upon itself. Claim 37 is indefinite because "the surfactant" lacks positive antecedent basis.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 102, 4, 9, 11-14, 18-19 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Wiedeman (6660100).

In reference to claims 1-2, and 4, Widemann teaches a method of removing paint from plastic parts comprising treating with a solvent mixture of N-alkyl pyrrolidone and sulfuric acid (Fig. 1) in vessel 8. In reference to claim 9, refer to col. 1, lines 54-55. In reference to claim 11, refer to col. 3, lines 20-25. In reference to claims 13-14, refer to Fig. 1. In reference to claim 18, col. 7, lines 53-55. In reference to claim 19, refer to col. 5, lines 50-55. In reference to claim 21, refer to col. 2, lines 14.

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1-2, 4-5, 10, 14, and 18-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Leon et al. (3338756).

In reference to claims 1-2, 4-5 and 14, Leon teaches a method of removing paint from plastic substrates using a composition comprising dimethylacetamide or dimethyl sulfoxide and phosphoric acid (col. 6, lines 30-40, col. 1, lines 15-17). In reference to claim 10, refer to col. 4, lines 39-50. In reference to claims 18-19, refer to col. 4, lines 58.

***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

15. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later



Art Unit: 1746

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

16. Claims 20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wiedemann (6660100).

Wiedemann fails to teach nylon or styrene. However, it would have been obvious to a person of ordinary skill in the art to have modified the method of Wiedemann to include nylon or styrene since Wiedeman teaches cleaning plastics and nylon and styrene are types of plastic material.

17. Claims 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leon et al. (3338756).

Leon fails to teach nylon or styrene or polyolefin. However, it would have been obvious to a person of ordinary skill in the art to have modified the method of Leon et al. to include nylon or styrene or polyolefin since Leon teaches cleaning plastics and nylon, polyolefin and styrene are types of plastic material.

18. Claims 8, 17 and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wiedemann (6660100) in view of Bivens et al. (6511546).

Wiedemann teaches the invention substantially as claimed with the exception of ultrasonic energy. Bivens teaches a method of removing paint (col. 3, lines 15-20). In col. 5-6, Bivens teaches cleaning the paints by immersion and application of sonic energy. It would have obvious to a person of ordinary skill in the art to have modified the method of Wiedemann to include ultrasonic energy as taught by Bivens et al. for purposes of enhancing the removal of pain from the substrate surface. Wiedemann in view of Bivens fails to teach the desired



Art Unit: 1746

frequency. However, it would have been within the level of the skilled artisan to adjust the frequency depending upon the amount and contaminants on the substrate surface.

Wiedemann in view of Bivens fails to teach the claimed immersion time. However, it would have been within the level of the skilled artisan to adjust the immersion time depending upon the amount of contaminants present. Wiedemann teaches drying of the plastic pieces (Abstract). Wiedemann fails to teach rinsing the parts. Bivens teaches rinsing to further remove the organic material from the substrate surface. It would have been obvious to a person of ordinary skill in the art to modify the method of Wiedemann to include rinsing as taught by Bivens for purposes of removing organic material, such as paint, from the substrate surface. Additionally, it is notoriously well known in the art to use conventional rinsing and drying steps in any cleaning process.

19. Claims 15-16 and 36-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wiedemann (6660100) in view of Wilkins et al. (5215675),

Wiedemann et al. teaches sulfuric acid but fails to teach HCl. Wilkins teaches stripping paint from substrates using NMP which is acidified with an inorganic acid. In col. 3-4, Wilkins teaches that inorganic acids having a pKa less than 4 can be used. Examples given include phosphoric acid and sulfuric acid. Since both HCl and sulfuric acids having pKa values of less than 4, it would have been obvious to a person of ordinary skill in the art to have modified the method of Wilkins to include equivalent acids having a pKa of less than 4, as taught by Wilkins et al., for purposes of enhancing the removal of paint from the substrate surface.

Additionally, it would have been well within the level of the skilled artisan to substitute HCl for sulfuric acid since both are mineral acids. In reference to claim 16 and in view of the

indefiniteness, the limitations are met by Wilkins et al. Additionally, adjusting the concentration of the acid would have been obvious absent any showing of criticality. Wilkins et al. fail to teach the surfactant. Wilkins teaches surfactants for enhancing the removal and dislodging of paint during the stripping operation. It would have been obvious to a person of ordinary skill in the art to have modified the method to include surfactants, as taught by Wilkins, for purposes of enhancing the removal of paint during the stripping process.

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Esposito teaches paint removing compositions. Keers teaches a method of removing resins. Nelson teaches a paint stripping composition. Fusiak et al. teach acidifying NMP. Sullivan teaches coating removers. Jarema teaches a paint stripper. Iizuka teaches cleaning paint. Muraoka teaches removing organic films. Waldrop et al. teach removing coatings from plastic articles.

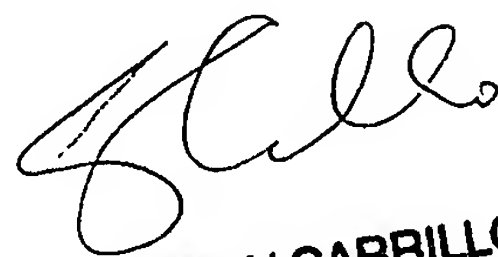
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharidan Carrillo whose telephone number is 571-272-1297. The examiner can normally be reached on Monday-Friday, 6:00a.m-2:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on 571-272-1414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sharidan Carrillo  
Primary Examiner  
Art Unit 1746

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SHARIDAN CARRILLO  
PRIMARY EXAMINER